



Digital Breathalyzer DA-9000 Series

ADMINISTRATOR'S MANUAL

**Thank you for choosing
ALCOFIND DA-9000.**

We hope you will experience state of the art technology by Fuel Cell sensor accuracy and reliability.

In order to get more accurate and reliable test result, we recommend you to familiarize yourself with the equipment, instructions and maintenance information contained in this user's manual.



TABLE OF CONTENTS

Basic Operation

Introduction & Option of DA-9000	3
Precautions	4
Name of each part	5
Preparation	6
Operation	7
Symbols & readings	8
Menu Flow	10

Basic Menu Options

Last tests	11
Information/Language	12
PIN mode	13

Advanced Menu Options

Instrument

Change PIN	14
Test Limit/Power Off Set	15
Date Limit / Set Time	16

Entering PIN mode

Unit/BAC limits	17
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Calibration

Solution type	18
Calibrate	19

Printer option

How to use printer	20
Attaching the Wrist Strap	22
Menu Guide	23
Specification	24

Introduction

ALCOFIND DA-9000 is a professional alcohol tester with extremely high-reliability. It can be used not only for law enforcement but also in the hospital, school and many other industrial fields. It measures estimated B.A.C(Blood Alcohol Content) in human breath by means of a premium fuel cell sensor which is high durable and providing accurate test results.

- Option 1 : Built in Real Time Clock (RTC)

The device displays current time and it is possible to set "time limit/ date limit" in the menu.

You can see measured time from the "Last test menu"

- Option 2 : Built in IrDA printing function

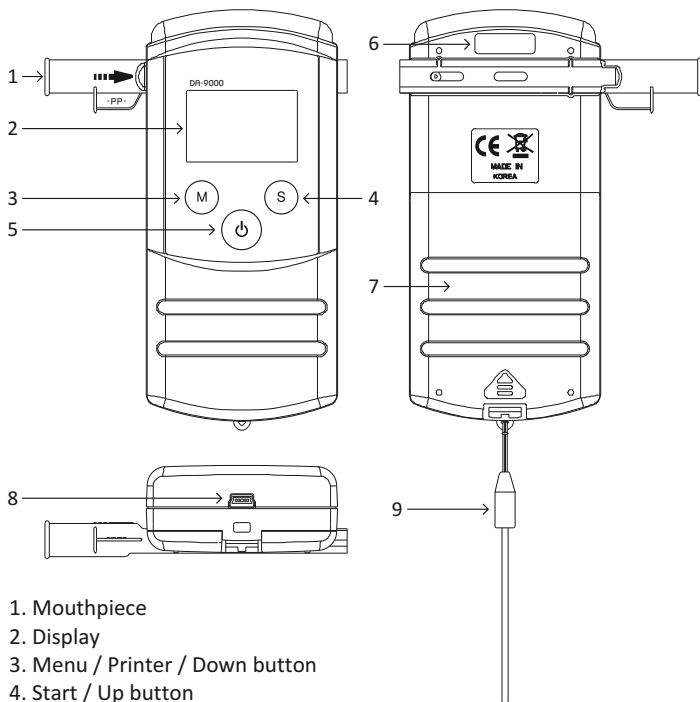
The device provides printing function by use of IrDA wireless communication

The basic model of DA-9000 includes Option 1 and Option 2.

Precautions

1. Read the instruction manual carefully before use.
2. Wait at least 20 minutes after drinking, eating or smoking before testing.
3. Do not blow smoke, food, liquid or condensation into the device, which will damage the sensor.
4. Maintenance and calibration should be performed by experts.
5. We recommend to you replace the disposable mouthpiece for sanitary reason.
6. Do not use this device as a tool to determine "drink and drive". The manufacturer and the sellers will not take any legal responsibility for the test results.
7. Aromatic drinks or mouth sprays containing alcohol can interfere with measurements. In this case, wait for 20 minutes or rinse the mouth with pure water.
8. For the reasons of accuracy, replace the batteries when the battery indicator lost all the bars or it starts to blink.
9. In case the measured value is higher than 0.10%BAC and you try again without interval, then warm up time might be delayed.
10. Perform a test within the operating temperature, which is specified in the instruction manual.
11. Do not drink and drive, even small amount of alcohol can result in driving impairment.
12. It is recommended to calibrate the device every 6 months or after 500 times tests.

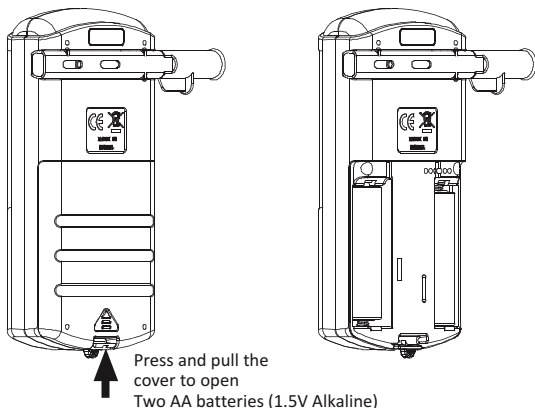
Name of each parts



1. Mouthpiece
2. Display
3. Menu / Printer / Down button
4. Start / Up button
5. Power / Select button
6. Infrared Window
7. Battery cover
8. USB connector
9. Hand Strap

Preparation

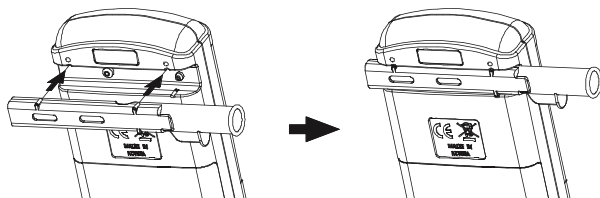
Install two AA batteries in the battery compartment by paying attention to the battery polarity.



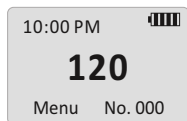
Insert a mouthpiece into the port on the back of the alcohol tester.

Ensure whether it is securely fit or not.

A new mouthpiece is to be used for every person tested .



Operation

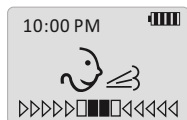


Press and hold (⏻) button for more than 1 second till the initial screen displays.

The countdown starts and displays total number of tests in the lower right-hand corner.

During the countdown you can go into "Menu mode", if you press (M) button for 1 second. In case you get out of the Menu at this time, the countdown starts again from the number of the time when you went into the Menu.

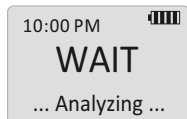
If "calibration required" appears when you turn on the tester, please contact Customer Service to recalibrate it.



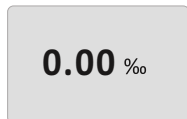
When the countdown reaches zero with a double beep sound, blow the mouthpiece, until you hear a double beep sound again. According to strength of your blowing breath, the bar moves to right and left.

You can get efficient measured value, when the bar is located on the square shapes in the center.

If you press (S) button at the stage of BLOW, you can just test BAC as a manual mode.



After taking your breath samples, LCD display shows "WAIT" for analyzing.



Once the sensor has analyzed the breath sample, it displays the estimated BAC (Blood Alcohol Concentration).

Symbols & readings



Battery symbol : Warns when battery is low or must be replaced.



Full battery



Battery capacity 75%



Battery capacity 50%



Battery capacity 25%



Empty battery

NOT

CALIBRATED

Calibration error message :

Calibration procedure was not successfully finished.
Try again recalibration procedure.

※ **Calibration must be done by experts with proper equipment. Please contact your local distributor or customer services.**

TEST LIMIT OVER
PLS RECALIBRATE

The tester requires calibration, please contact local Customer Service to recalibrate it.

TEST LIMIT OVER PLS RECALIBRATE appears, when the test number is over the set value.

DATE LIMIT OVER PLS RECALIBRATE appears, when the date is over the set date. (testers with RTC function)

OUT OF
TEMPERATURE

If the tester is outside of temperature limits (lower than 0°C or 32 F), the display shows "OUT OF TEMPERATURE" and the testing can not be performed.

TIME SETTING
REQUIRED

If the message, "TIME SETTING REQUIRED" appears on the display, please reset time.


**** Please refer to the page 16 for time setting information.**

Time Out

If the tester does not work within the time set in the Menu "Power off set", it will be turned off automatically after the "Time Out" is flickering three times with three beep tones .

Flow Under 1.3L Blow Again

Flow Under 1.3L Blow Again : it appears, when the blown flow rate for measuring is less than 1.3L.
Stopped Suddenly Blow Steadily : it appears, when the user blows in a wrong way or the breath stopped suddenly during the blowing.

When those error messages appear, press  button for measuring again.

Error 1

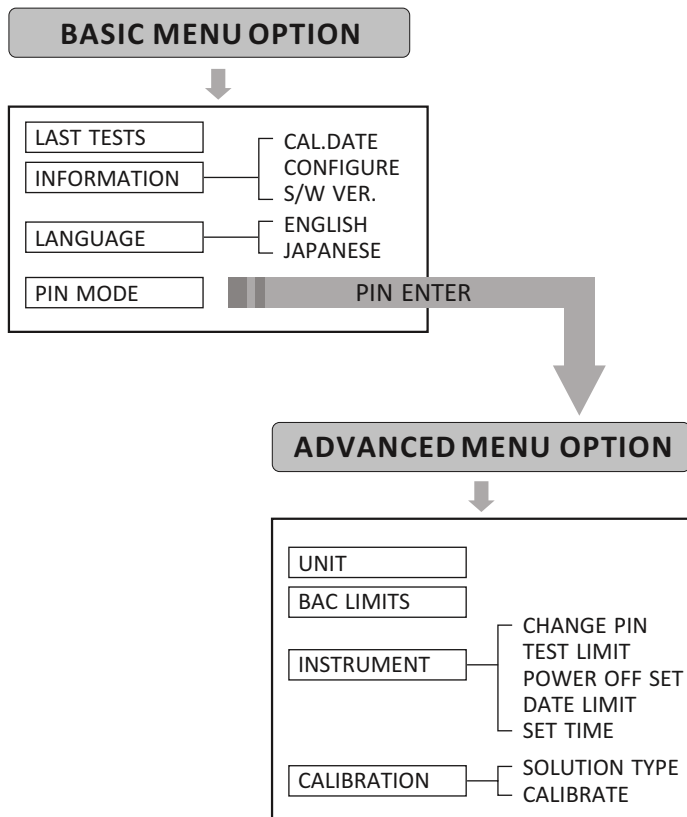
In case of internal error, the display shows "Error 1".
If it keep showing "Error 1" dialogue, please contact your local distributor or customer service.

Battery





The warning message, "Battery" appears on the display, when the device sensed very low battery.
Please replace the batteries with new one for accurate, reliable measurement and performance.

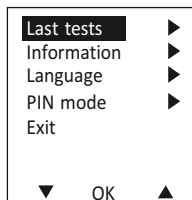
Menu Flow



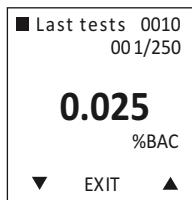
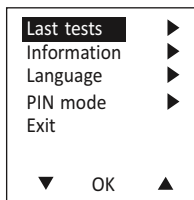
Entering Basic Menu Options

Turn on the device by pressing  button for 1second

To enter the basic menu options, press  button for 1 second

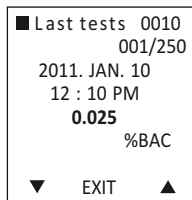
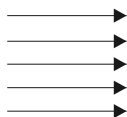


Last tests






MODEL without Option 1

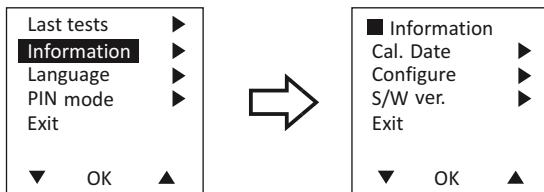
Total number of test performed
 Number of test results recorded
 Date of test performed
 Time of test performed
 Test results



MODEL with Option 1

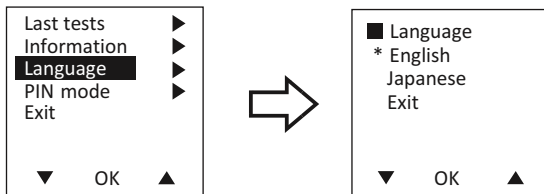
Press  button to enter "Last tests" menu. The most recent test results information appears. By pressing  or , the next results will be shown. The tester will recall up to last 250 test results. If the memory is full, the oldest test result is deleted automatically.

Information



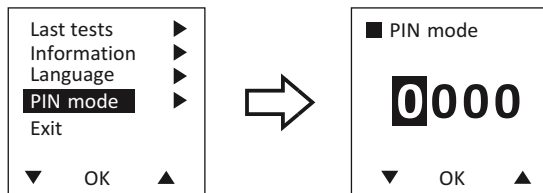
This can check out the information about latest calibration date, configure and S/W version.

Language



This can select the language that you prefer. Default setting is "English"

PIN mode



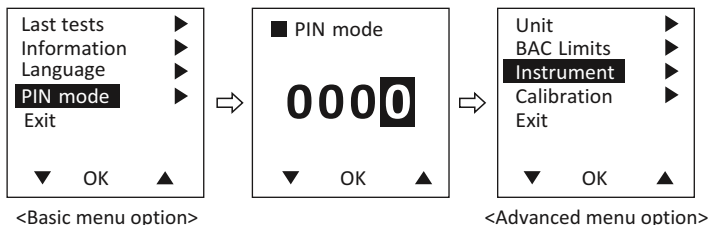
PIN mode is a first step to the "Advanced Menu Options" by entering password. Default value is "0000".

* You can change PIN in the "Advanced Menu Options", which will be described in detail from the next pages.

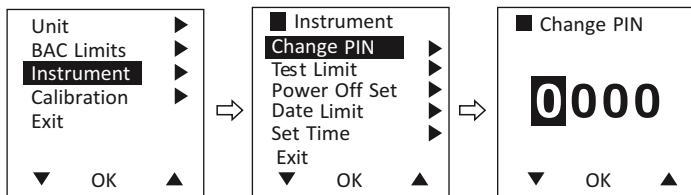
More various user adjustable options are available in "Advanced Menu Options".

In the Basic Menu option, select "PIN mode" and input password.
(default is "0000") Initial screen of "Advanced Menu Options" you can see.

Entering Advanced Menu Option



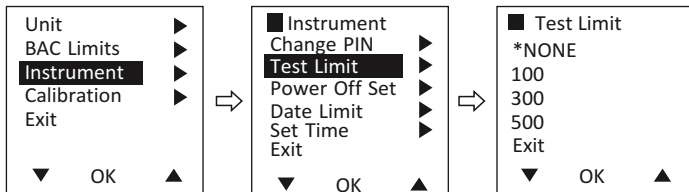
Change PIN



You can change the password of PIN mode.

※ In case you forgot the password,
you can re-set the new password with PC software's "Menu PIN" command.
(Please refer to the S/W manual)

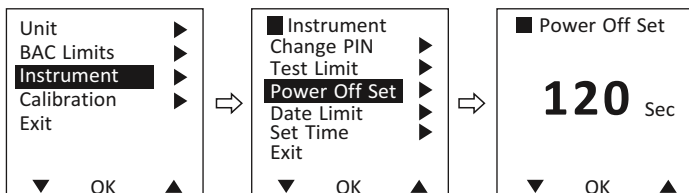
Test Limit



In this menu option, you can adjust the Test Limit to announce that the tester needs to be recalibrated. If accumulated test time exceeds from selected number, the message of "TEST LIMIT OVER PLS RECALIBRATE" appears when you turn on the device.

(If not required the Test Limit setting, you can select "NONE")

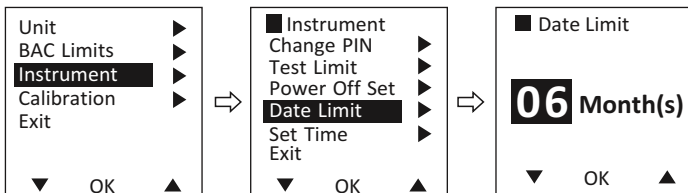
Power Off Set



The user can set automatic Power Off time between 30 seconds and 300 seconds. Standard set value is 120 seconds, when the tester was released.

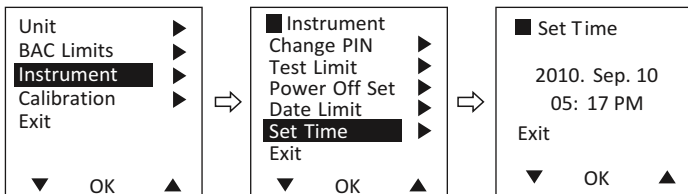
Date Limit Menu and Set Time Menu are available only for the testers with RTC (OPTION 1)

Date Limit



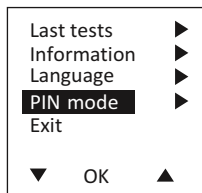
In this menu option, you can adjust the "Date limit" to announce to be recalibrated, if the last calibration date exceeds the period you have selected. The message of "DATE LIMIT OVER PLS RECALIBRATE" appears when you turn on the device. (If not required the Date Limit setting, you can select "NONE")

Set Time

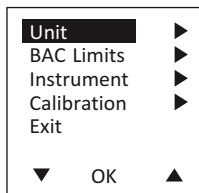
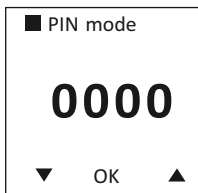


You can adjust "set time" if it does not match your local time. Before using the tester for the first time, you need to check and update the time & date. (On your computer, it is more easily adjustable by just one click. Please refer to the S/W manual)

Entering "PIN mode"

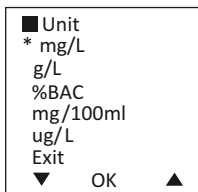
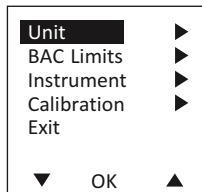


<Basic menu option>



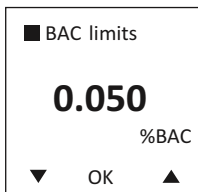
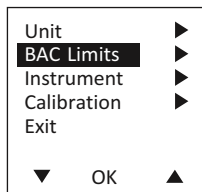
<Advanced menu option>

Unit



You can change measurement unit in this option.

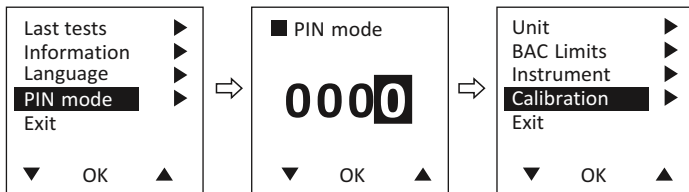
BAC limits



You can set up the range of BAC Limits.

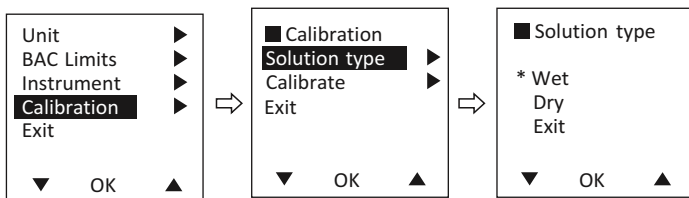
In case the measured value is more than the set limit, the screen displays measured result with a beep sound.

Entering "Calibration" mode



- ✱ **Calibration must be done by the experts who are fully qualified with certified equipment.**
Please contact your local distributor or customer service if it required.

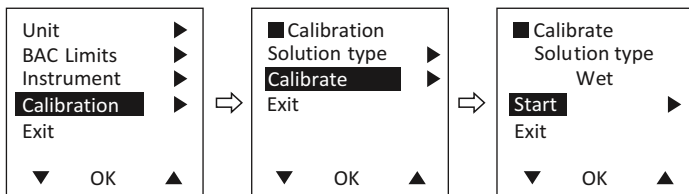
Solution type



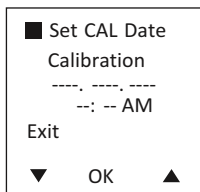
You can select the calibration solution type that you will use.

- **Wet** : Using Wet Bath simulator,
- **Dry** : Using Dry gas tank.

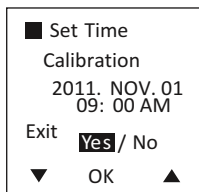
Calibrate



In order to calibrate the device, please enter the menu,
"Calibration -> Calibrate -> Start" in other,



MODEL without Option 1





MODEL with Option 1

Model without Option1 : without RTC (Real Time Clock) function
If the calibration is performed ordinarily, "Set CAL Date" will appear on the display and
The device will be turned off, when you press "Exit - OK" after inputting calibration date.


Model with Option1 : with RTC (Real Time Clock) function
The pre-set time will appear on the display.
If the time is correct , press "Yes" and then the power will be shut off.
If you press "No" , you can enter the mode where you can input time.
The power will be shut off , when you press "Exit - OK" after setting the time.

Power off

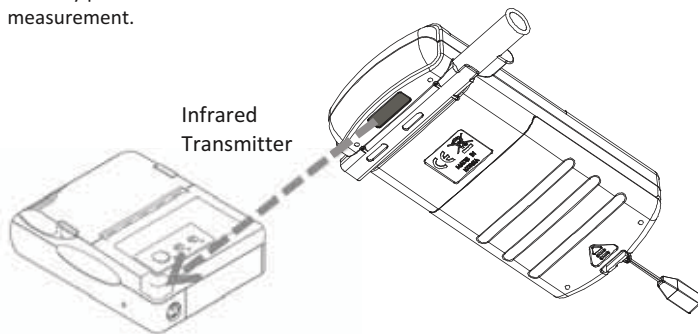
Keep  button pressed for more than 1 second, the tester switches off. If the tester does not work within the time set in the Menu "Power Off Set", it will be turned off automatically after the "Time Out" is flickering three times with three beep tones . Please press  button, if you don't want it to be turned off automatically at this time.

Print

How to use printer (Option 2)

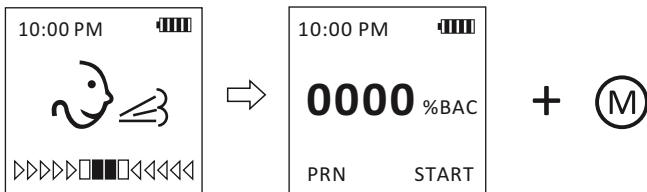
After measuring, you can printout with wireless data transfer(IrDA), placed the tester's Infrared Window toward the Printer's Infrared Window and hold  button for 3 seconds.

You may printout in the mode of "Last tests" as well as finished each measurement.



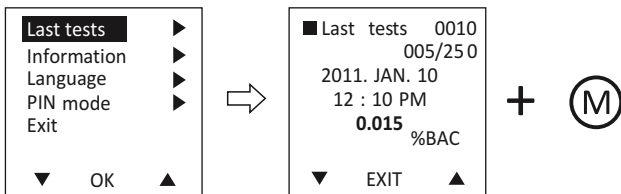
<Portable printer has IrDA>

Instant test result printout



You can printout your test results right after measurement displayed, simply by hold (M) button for 3 seconds.

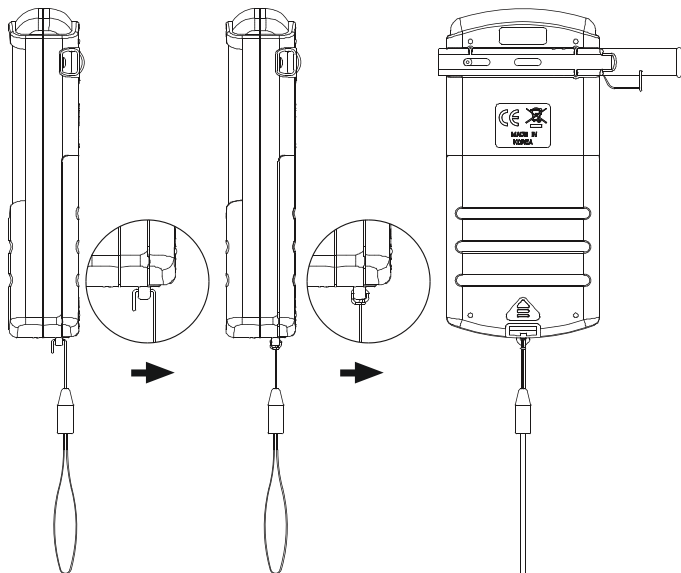
Recorded test result printout



If you need to print one of the recorded test results, entering basic menu option's "Last tests" and select your desired results by move up & down (M & S) button. After selecting test results, hold the (M) button to printout.

Attaching the Wrist Strap

Please refer to the following pictures how to attach the wrist strap



Menu Guide

BASIC MENU OPTION

Last TESTS	
INFORMATION	CAL. DATE
	CONFIGURE
	S/W VER.
LANGUAGE	ENGLISH
	JAPANESE
PIN MODE	

ADVANCED MENU OPTION

UNIT	
BAC LIMITS	
INSTRUMENT	CHANGE PIN
	TEST LIMIT
	POWER OFF SET
	DATE LIMIT
	SET TIME
CALIBRATION	SOLUTION TYPE
	CALIBRATE

S/W MENU OPTION

MAIN	START PC MODE
	END PC MODE
	EXIT
DATA	READ TEST RESULT
	OPEN DATA FILE
	EXPORT TO EXCEL
	CLEAR TEST RESULTS
	TEST NUMBER
	MENU PIN
CLOCK	SET DATE AND TIME
OPTION	PROGRAM SETTING
	PRINTER SETUP
HELP	

* For S/W program and manual, please contact your local distributor or customer service.

Specifications

Indication of B.A.C.	0.000 ~ 0.500%BAC 0.00 ~ 5.00 ‰ 0.00 ~ 2.50mg/l
Accuracy	+/- 0.005%BAC at 0.1%BAC at 25 °C +/- 0.05 ‰ at 1.0 ‰ at 25 °C +/- 0.025mg/l at 0.50mg/l at 25 °C
Warm up time	Within 12 seconds at 0.50g/l(‰) warm up time may vary depending on the BAC measured.
Sensor	Premium Fuel cell sensor
Power supply	Two AA size alkaline batteries
Battery Life	Approx. 1000 tests
Dimensions(WxHxD)	58mm x 125mm x 27mm
Weight	157g including batteries
Calibration	every 12 months or after 500 tests
Operating temperature	5 ~ 40 °C

The specifications are subject to change without prior notice for functional improvement.